

ABSTRACT

A corner cube utilized for both a polarization transformer and a depolarizer requires a special glass for the corner cube. For the transformer a polarized probe beam irradiates only one facet of the corner cube off-axis to its vertex, whereas for the depolarizer a circularly polarized beam irradiates all three facets symmetrically on-axis to the cube vertex. The collimated output beam from the corner cube has a hexad pattern where alternate hexads correspond to CW (clockwise) and CCW (counter-clockwise) rotations in sequential reflections from the corner cube facets. CW and CCW hexad regions comprising the depolarized beam differ in phase by 0.8π radians. A dielectric layer pattern of alternate hexads deposited on the output port of a beam director in registry to the depolarized beam pattern compensates for the leading phase of the CCW hexads thus equalizing the overall phase-front of the beam and thereby resulting in a temporally-coherent depolarized beam.

I request Fig. 9(a) for first
page figure.

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